Summary of Project Descriptions for Preapplications
Submitted for 2010 SRFB Grant Round

A. Salmon & Snow Creek Riparian Project

The North Olympic Salmon Coalition (NOSC) is proposing a riparian planting project to take place on Washington Department of Fish and Wildlife (WDFW) property in lower Snow Creek as well as a private parcel in the Salmon Creek watershed. On WDFW property, planting will increase the vegetated riparian area and floodplain for lower Snow Creek by 9 acres. On private property, planting will re-vegetate a steepened right bank of Salmon Creek and establish conifers in an existing deciduous dominant riparian forest for a total of 5 acres. The project will maintain both sites for two growing seasons. Snow Creek and Salmon Creek enter Discovery Bay about 1,400' from one another. These watersheds are one of the priority habitats for Hood Canal Summer Chum. Extensive work has been done by multiple partners to protect and restore habitat in these watersheds. This proposal is another step in recovering the ecosystem for summer chum, steelhead, coho and cutthroat.

Riparian habitats are the most fundamental building block for protecting and restoring aquatic freshwater and marine ecosystems and the species that depend on them. Virtually all watershed assessments and species recovery plans from landscape to reach, to watershed scales call for improving riparian habitat quality and quantity and reducing fragmentation of these habitats.

B. Snow Creek Delta Cone and Estuary Design

The North Olympic Salmon Coalition and our partners have been implementing actions in lower Salmon and Snow Creek watersheds for over 15 years in an effort to restore the ecosystem which supports endangered summer chum salmon, ESA listed steelhead, coho and cutthroat trout. To date, the vast majority of efforts have centered on Salmon Creek. This project will compliment those efforts, especially the estuarine recovery efforts, with actions in the Snow Creek Estuary.

A conceptual design has been developed and will be the springboard for developing final plans for Snow Creek. Design elements are likely to include:
1) removal of overbank deposition constraining lower Snow Creek and disconnecting the entire length of the creek from salt marsh and tidal channels
2) removal of fill from the historic estuary surface
3) reconfiguration of the mouth of Snow Creek to maximize tidal hydrology and existing tidal channel networks
4) development of a largely isolated nearshore pond into a healthy off channel habitat in the nearshore.

Project goal: Develop project construction concepts into a cost effective project design that when implemented, will improve connectivity and quality of salt marsh habitat in Snow Creek for summer chum rearing and will not constrain potential future restoration actions.
This project is supported by the Hood Canal Summer Chum Salmon Recovery Plan, the WRIA 17 Limiting Factors Analysis and the Hood Canal Lead Entity 3-Year Work Plan.

C. Kilisut Harbor / Oak Bay Reconnection Design

This is a feasibility and Design only project. The loss of tidal exchange has severely impacted water quality and marine life in southern Kilisut Harbor. A WDOE report recommends replacing the roadway and culvert with a bridge. In addition to the water quality impacts, the loss of habitat connectivity for salmon, forage fish, and marine mammals is staggering. The transition of Kilisut Harbor from a passage between two islands to a bay opened only at its northern end makes its 2,285 acres of habitat far less accessible and useable by fish and mammals. The impacts to the migration of these species, adults and juveniles alike, are very significant.

To maximize ecological benefits, restoration of the Oak Bay/Kilisut Harbor connection will restore habitat-forming processes. This would entail replacing the roadway with a bridge spanning the entire tide flat separating Indian and Marrowstone Islands - a distance of 400 feet. The portion of the Oak Bay spit that accreted since 1880 (about 0.65 acre) would then need to be removed to restore tidal exchange, water quality, and habitat connectivity in Kilisut Harbor. Restoring the tidal connection between Oak Bay and Kilisut Harbor is a landscape-scale restoration project that should be considered a high priority in the context of the entire Puget Sound ecosystem. We have over 100 petition signatures from residents on Marrowstone Island in support of this project

Goal:
1) restore unimpeded fish access to estuary and harbors and
2) improve water quality of estuary and Kilisut harbor.

D. Tarboo Bay Acquisition and Restoration

The project is a critical part of the larger effort underway to protect the Tarboo-Dabob Bay estuary as a whole. The project proposes to permanently protect and restore eight acres of saltmarsh and marine riparian habitat associated with the high quality Tarboo Creek saltmarsh complex, identified by Todd et al. (2006) as the largest "functional" stream-delta salt marsh complexe remaining in the Straits and Hood Canal region. The saltmarsh provides important juvenile rearing habitat for summer chum and Chinook salmon, and is a high priority (Domain 2) in the HCCC Restoration Strategy and 3-Year plan.

The project secures protection for three of only five remaining private shoreline parcels on the west side of inner Tarboo Bay between the DNR Natural Area and the WDFW Lower Tarboo Creek Preserve. Grant funds will allow Jefferson Land Trust to purchase conservation easements on two of the parcels to protect them in a natural state. The third parcel will be donated to Northwest Watershed Institute as a life estate for the purpose of eventual removal of the house and restoration. On the northernmost parcel, NWI proposes to restore riparian shoreline by removing a trailer and sheds, decommissoning an access road and replanting with native plants. This project also provides essential state match funding for a proposed National Coastal Wetlands Conservation Grant to protect an additional 100 acres of high priority private lands within the Dabob Bay Natural Area with an additional $2 million in private donations and federal funds.

E. Brush Plant Road Reach Restoration

The objective of the project is to improve existing and create new in-stream and riparian habitats for salmon and trout while increasing bank stability for streamside landowners. By placing large woody debris structures (LWD) in key places along the river, higher flows will be diverted into the flood plain areas away from the main channel and from susceptible stream banks. This will accomplish several key outcomes.

-The first is to reduce the volume and velocity of water that is currently traveling down the main channel and decrease the scouring of the channel bottom and stream banks.

-Secondly, it will create smaller side channels in the uninhabited floodplain areas and provide high quality refuge habitat for salmon/trout during high and moderate flows.

-Thirdly, the structures will increase quality and quantity of habitat by breaking up some of the long straight riffle features and providing pools and backwater areas.

LWD will consist of five different treatment types including bank jams, apex jams, grade control, single wood placements, and log/boulder structures, each with slightly different objectives. These treatment types and their locations are depicted in the attached map and defined on a separate page. In addition to LWD, several spots for riparian plantings have also been identified to increase riparian diversity and to help, in the long term, bank stability. Spawning gravel will be added to the 12 pools created.

F. Big Quilcene Delta Cone Removal Design

Need: Develop a plan and design to remove the effects of over 100 years of land mismanagement resulting in a significant delta cone in the estuary that impedes natural tidal action which cleanses the estuary and ensures fish passage.

Goals: The goal of the project is to develop the final design, budgets, and permits to be ready for construction in 2012.
Scope: Remove 50,000 CY of aggraded heavy sand and gravel; construct approx 1,000 ft. of new river channel
Expected Outcomes: Final design, budgets, funding strategy, permits, and ready for construction contracts.
Community Involvement: The town of Quilcene has been extremely active in restoration efforts in the past. Adjacent property owners have been working closely with the Jefferson County Conservation District, HCSEG and the Lead Entity for several years supporting this and other area salmon recovery efforts.
Previous or Anticipated Phases: To date over $8 million has been invested in the Quilcene Bay. The overall strategic plan estimates an investment of $12 million upon completion in the coming years.
Evidence of Recovery Plan or Lead Entity Strategy: 3 year watershed implementation Priorities for HCCC= Domain 1 project.

G. Big Quilcene Estuary Acquisition Planning

The "Big Quilcene River Linger Longer Reach Feasibility Study & Action Plan" determined that the river in the project area is confined by two levees and is too narrow and straight for good salmonid habitat. Banks are armored with riprap, pools are relatively rare and shallow, it is gravel bedded but has no gravel bars. Shading areas are generally low as there are only a few trees. Summer water temperatures are higher than optimal for salmon and the lack of large trees makes LWD recruitment improbable.

This project will lead to the acquisition of parcels along the lower Big Quilcene River below Linger Longer Road and the estuary in order to allow floodplain and channel restoration. The goal of the project is to protect degraded habitat from further degradation with the intent to restore the habitat. The objective of the project is to protect degraded salmon refugia, and habitat part of key ecological processes.

After years of work, 19 contiguous parcels, making up 20 acres of land have been identified for sale and conversion to permanent environmental conservatorship primarily on the south side of the river and adjacent to State and County land contiguous to the north. Funding is required to obtain a fair market value real estate appraisal, an inventory of buildings and infrastructure, and develop a mitigation plan and cost to render the properties environmentally neutral. Jefferson County and the citizens of the nearby town of Quilcene have been very active in supporting this and other similar local efforts.

H. Dosewallips Riparian Corridor Acquisition

Washington State Parks will use this grant to acquire 129 acres of priority parcels within a 1,000 foot-wide, 588 acre riparian corridor along the south side of the Dosewallips River, extending approximately five miles from the western border of the Dosewallips State Park at the mouth of the river to Olympic National Forest. State Parks identified these priority protection actions as part of their 2006 Dosewallips State Park Area Classification and Management Plan, designed to balance recreation with natural and cultural resource protection in the Dosewallips region. Acquisition of priority riparian lands along this reach will address threats to Threatened Puget Sound chinook and Hood Canal summer chum habitat, including large woody debris removal, degradation of riparian and upland forests, and floodplain development. Expansion of the State Park may also enable future restoration of the lower Dosewallips floodplain, including removal of a 500- foot levee that is currently protecting existing campsites.

The Dosewallips has been recognized as a high priority conservation watershed by a number of plans and entities, and State Parks is partnering with the Hood Canal Coordinating Council, The Nature Conservancy, Jefferson Land Trust and others to seek funding from this and other sources to advance this unique opportunity to conserve a complete riparian corridor from the headwaters of the Dosewallips in Olympic National Park to one of the largest estuarine deltas in Hood Canal.

I. Dosewallips Engineered Log Jams

This project proposes the construction of 8-10 ELJs in the middle and upper reaches of the Dosewallips River, within the Olympic National Forest. It will implement the results of the 2008 SRFB grant funded as a feasibility assessment and design project(s): Dosewallips ELJ Design (04-01-000) and Duckabush ELJ Design . It will obtain permits and construct the ELJ's. These designs will be available for permit application in the summer of 2010.

The objective of this project is to increase the function of fluvial habitats for chinook salmon in the middle and upper reaches of the Dosewallips River through the creation of Engineered Log Jams (ELJs). Large woody debris historically played a dominant role in controlling channel morphology, the storing and routing of sediment, and the formation of fish habitat. Large woody debris creates habitat heterogeneity by forming pools, back eddies, and side channels, and by increasing channel sinuosity and hydraulic complexity. Much of this function has been lost in the alluvial reaches of Puget Sound Rivers through the logging of mature riparian vegetation and the removal of instream woody debris.

J. Skokomish General Investigation 2010

This request for additional support is direct to the combined sponsorship of the Army Corps of Engineer's General Investigation of the Skokomish River. Both the Skokomish Indian Tribe and Mason County have a cost-share agreement to contribute resources totaling the commitment from federal resources for an investigation that has ultimate benefits to the Puget Sound basin from its sub-basin of the Skokomish River. Due to anticipated flow regime changes from the FERC project #460, Tacoma's Cushman Hydroelectric Project, along with certain basin innovations in ownership, technologies and restoration opportunities, such watershed benefits affect the Hood Canal drainage, a glacially-carved fjord of Puget Sound. This project helps support overall Puget Sound partnership goals and objectives.

The initial requested funding amount, $350,000, meets the non-federal match amount for local sponsors (Tribe & County) for FY11. It is likely other funding will be available before this round of SRFB grants are awarded. If so, the request amount will be reduced accordingly. Also, any investigation required by FERC as a condition of the Cushman Dam license which can be done in conjunction with the General Investigation will result in further cost savings for this project.

To date, the USACE has been conducting the baseline condition study. During FY10, USACE and the local sponsors will be holding public meetings and begin developing project alternatives and begin the EIS. In FY11, the EIS will be completed for the plan.

K. Frigid Creek Fish Passage Restoration

This project will remove barrier culverts on Green Diamond Resource Company (GDRCo) 8000 Road at Station 247+00 (Big Horseshoe) and Station 287+75 (Little Horseshoe) on 2 forks of Frigid Creek and replace with fish passable structures spanning the creek channel with a bridge or bottomless culvert restore anadromous fish passage to ~ 5,000' and 3,600' of habitat upstream of the culverts. The project may be split into two separate projects if necessitated by available funding.

Frigid Creek is a tributary to McTaggert Creek, in the North Fork Skokomish watershed. The road crossings were established prior to 1946, with approximately 30' deep road fill. The current culverts have outfall drops > 3', which prevent upstream fish migration (Coho salmon). Road management is regulated under GDRCo's Habitat Conservation Plan which does not require fish passage in all situations, the USFS has an administrative use easement, and significant public use of the road has occurred for decades.

LWD will be placed into the channel downstream of the work site, and grade control through the project site by use of rock "constructed riffles". By removing the undersized culverts and road fill, approximately 16,000 yd3 of material will be removed. Based on current data, these two sites represent the largest remaining anadromous culvert barriers in the Skokomish watershed.

L. Twanoh State Park Soft Shore Design

Need: Twahoh Creek and its estuary has been negatively impacted by Twanoh State Park development.

Goal: The opportunity exist to realign the stream in several places, add LWD to improve stream habitat for improved fish bearing and passage within the state park and restore the nearshore beach processes needed to support forage fish.
Scope: This project will provide the engineering and cost data required to Restore Twanoh Creek, the Twanoh Creek pocket Estuary, restore 1,200 feet of eroded shoreline, remove rip rap, reconstruct the box culvert crossing under SR 106, reconstruct the shoreline uplands behind the new beach area, and redesign guest parking that impacts the creek and estuary habitat. Conversations are ongoing with the the Parks Commission regarding the redesign of the boat launch ramp to that of a pile supported structure that would allow natural drift cell activity along the beach.
Expected Outcomes: Thirty percent engineering and design documents, costing elements and permit identification required to obtain future restoration and construction funding by several stakeholder agencies.

Community Involvement: The Twanoh Beach community, Washington State Parks Commission, Hood Canal Coordinating Council all support the initiative. The park is intensely utilized during the summer months and offers an outstanding opportunity for habitat conservation education.
Anticipated Phases: This is a stand alone project however it is anticipated that future construction and restoration actions will be forthcoming.

M. Knotweed Control and Riparian Enhancement Year 3

This project will assess and continue control of knotweed in five river systems throughout the Hood Canal; the Union River, the Tahuya River, the Dewatto River and the Big and Little Quilcene Rivers. Knotweed infestations cause damage to the riparian corridor, harm to juvenile salmonids, and is costly to control when the damage becomes severe.

Our goals are to continue with: Our third year of control and assessment of knotweed species in the Union and Dewatto Rivers, second year of knotweed control and assessment on the Tahuya River, riparian plantings of native conifers and shrubs on the Union, Dewatto and Tahuya Rivers and knotweed control efforts and riparian plantings on the Big and Little Quilcene Rivers. Our secondary goal is to continue to educate the public about knotweed impacts on salmon habitat.

N. Lower Tahuya LWD Placement

The HCSEG completed a watershed assessment and woody debris design project last year for the Lower Tahuya River. Six reaches were identified and analyzed for condition and goals/objectives were developed for each reach. Additionally, multiple sites were selected within each reach for woody debris placement to meet those objectives, while each site was rated as to the level of function that would be restored.

Reach 6, the upper storage reach, has undergone the most extensive widening and gravel aggradation, is just upstream of the upper extent of summer chum spawning, and had the highest average rating of function restored by site, and so was selected as the initial starting point for restoration.

The goal of the project is to improve rearing, spawning, and egg-incubating habitat for all salmonid species in the Tahuya River, while the objective outlined in the assessment is to provide sufficient quantities of long-lasting coniferous wood to improve channel stability and protect/improve habitat quality. LWD will stabilize and trap gravel, improve channel stability and form, and create pools and shade.